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China, Peoples Republic of Food Processing Ingredients Sector The Ripening of China's Food Processing Sector 2003

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Report Highlights:

Recent China Food Industry Association statistics indicate that the food processing industry has grown an average 14% by output value since 1981. Industry growth is expected to climb to 18% as China implements WTO protocols over the next three years. As the current leaders of the food processing industry, foreign companies are poised to benefit from WTO-mandated market and legal reforms. Although the industry presents attractive opportunities for American producers and processors, companies must understand that success in this market requires planning, adaptation, time and patience to establish and cultivate local business relations.

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SECTION I: MARKET SUMMARY

A. General Background and Statistics

Since its introduction in the late 1970s, the food processing sector has grown to become one of the most dynamic and modern segments of the Chinese economy. Foreign companies use technology and management expertise to play a leading role in the sector, though current progress is hampered by undeveloped agriculture and poor logistical infrastructure. Over the next several years the food processing sector is expected to flourish as WTO accession results in lower tariffs, more logistics service competition and accelerated market and legal reform.

GDP figures seem to reflect accurately the general direction of China's recent economic development. However, poor record-keeping, incomplete coverage and exaggerated reporting require that all statistics on the Chinese market be dealt with cautiously. For example, while official figures peg food processing industry growth at a 14% increase in output value since 1981, with 18% predicted for the near future, industry insiders prefer a more general figure, saying it is reasonable to expect consistent growth "in double figures."

Currently only about one-quarter of China's food production is processed, compared to as much as 80% in more developed countries. Gross output value for the food industry was listed at approximately RMB 755 billion RMB (USD 91.4 billion) in 2001 (see Figure 1 below), which makes up about one-twelfth of China's overall industrial output (2001 is the most recent data available). By comparison, US food industry output was about USD 124 billion in 2001.

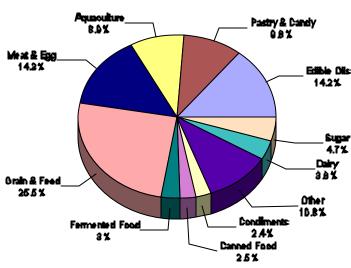
Figure 1: China's Food Industry Structure

China Food Industry Structure, 2001

Primary Processing 64.9 % 410 Total RMB 755 billion 169 169 Rewrages 24.1 %

Source: China Statistical Yearbook 2002 & 2001

Food Processing Sub-Sectors, 2000



The 2001 China Statistical Yearbook lists the

enterprises above the township and village level as 18,251 with 10,381 classified as primary food processors (e.g. flour milling, oilseed crushing, slaughtering); 4,563 classified as food "manufacturers" (this category generally covers what in the West is called the food processing industry) and 3,307 classified as beverage manufacturers. Significantly, the total number of food enterprises has fallen in recent years as the volume and value of processed food rises. Smaller operations are closing or merging into larger enterprises as the industry rationalizes and improved transportation allows consolidated plants to serve ever larger areas.

Figure 2: Output (millions of metric tons) of processed food by category

	1999	2001	Percentage Growth
Dairy Products	8.07	11.23	38%
Aquatic Products	41.22	43.81	6%

Source: China Statistical Yearbook 2002, China Food Industry Association

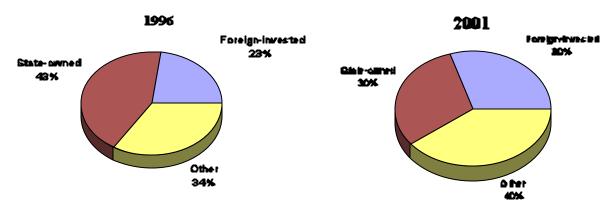
B. Foreign Investment

Foreign investment plays a critical role in developing the food processing sector. Companies such as Danone, Cadbury, Cargill, Hormel, Perdue, Nestle, Kraft, Pillsbury, Yum!, Chaeron Pokphand, Jollibee and others have all heavily invested in the China market. Foreign-invested enterprises (FIEs) are generally more technologically advanced and also larger in scale than Chinese enterprises. Ingredients suppliers like Simplot, International Flavor and Fragrances and McCormick are also active in the Chinese market.

Of the total number of food processing enterprises, 2,601 or 14% were classified as foreign funded enterprises in the year 2001: 1,244 primary processors, 922 food manufacturers and 441 beverage manufacturers. Foreign-invested enterprises (FIE) occupy an increasing percentage of the food market, meaning that a large part of the marginal growth is going to foreign enterprises. Within China's food processing sector, FIEs can be broken down into companies that are targeting the domestic market (and within the domestic market, to either higher-income consumers or the mass market) and those that are using China as a competitive base for global exports. Both of these groups are more likely than Chinese processors to use imported ingredients because advanced technology requires higher quality and more consistent inputs, they often buy in bulk to lower costs, and FIEs that manufacture for export or target the white-collar consumer generally have more latitude to use relatively expensive imported inputs.

Following its December 2001 accession to the WTO, China has begun to eliminate tax holidays and install other tax incentives aimed at encouraging foreign direct investment (FDI). However, WTO membership is expected to more than balance that effect by speeding up market and legal reforms, increasing flexibility and competition in logistics, improving protection of intellectual property and combating protectionist impulses at the local level.

Figure 3: Industry Output by Ownership



Source: China Statistical Yearbook (all companies have more than RMB 5 million (USD 600,000) in sales)

C. Imports

Tariffs are a major hurdle for imported food ingredients in China, although many are due to fall with the implementation of WTO protocols between 2002 and 2005. The typical tariff on agricultural products will decline from an average of 22% to 17.5%, while American product tariffs are scheduled to drop to an average rate of 14.5%.

With lowered tariffs, imports are facing non-tariff trade protection barriers. For example, sanitary and phyto-sanitary issues (SPS) are increasingly identified as constraints. Genetically modified organisms (GMOs) face a complex and unpredictable permit process. On city, county and provincial levels, local protectionism is a strong force -- individual localities may require separate testing procedures and permits and throw up other roadblocks to market entry. Under WTO, a transparent appeals process will enable companies to contest local decisions.

Import/export procedures, including customs clearance, inspection and health and safety procedures, are inefficient. Limited hours hamper delivery schedules. Materials that do not precisely fit Chinese customs or SPS categories are likely to be delayed. Some ports, including Shenzhen, Ningbo and Shanghai, are making an effort to bring their practices up to international standards. Companies registered in Shanghai's Waigaoqiao (WGQ) Free Trade Zone (FTZ), for instance, may enjoy facilitated customs clearance, foreign exchange conversion, and bonded warehousing and shipment.

Figure 4: Sample WTO Tariff Rates Reductions

Commodity	Pre-WTO	2002	2003	2004	% Reduction
Animal Fats	33	19	12	5	84.8
Raisins	35	22	16	10	71.4
Oranges & Lemons	35	22.6	16.8	11	68.6
Lactose	30	20	15	10	66.6
MSG	54	36.6	28.8	21	61.1
Vitamin C	9	4	4	4	55.6
Potato Flour	27	21	18	15	44.4

^{&#}x27;State-owned' includes State-owned companies and listed, state-controlled companies.

^{&#}x27;Other' includes domestic private, co-op and township & village enterprises.

Agars	18	12.5	10	10	44.4
Vegetable Fats	40	31	28	25	37.5
Tapioca	23	19	17	15	34.8
Shelled Walnuts	28	24	22	20	28.6
Active Yeast	29	27	26	25	13.8
Glucose & Fructose	34	32	31	30	11.8
Pectins	20	20	20	20	0
Mucilages & Thickeners	20	20	20	20	0
Lactic & amino acids	8	8	8	8	0
Lysine	7	7	7	7	0
Corn & Wheat Starch	20	20	20	20	0
Roasted Cereal Products	25	25	25	25	0

Source: China Ministry of Foreign Trade & Economic Cooperation; new tariffs take effect on Jan. 1 of each year.

D. Key Market Drivers

The growing prosperity and ensuing changes in lifestyle of Chinese urban residents are the biggest factors driving the development of the food processing industry. Approximately 40% of urban diets are now made up of processed food, versus 20-25% for the country as a whole.

Urban consumers have driven growth in dairy and meat industries, seeking more variety and better protein sources. They are also busier and have less time to spend shopping and preparing food. Most urban residents have refrigerators and microwaves, and many prefer to shop once a week, rather than daily as in the past. In most families with children, both parents work. These demographic factors have created a demand for frozen, packaged, canned, convenience and instant foods. Dining out is popular, as is fast food.

The structure and scope of the wholesale, retail and hotel-restaurant sectors are also undergoing dramatic transformations to keep up with demand and newly sophisticated tastes. Food service revenue has nearly doubled over the past four years to reach an estimated USD 60.4 billion in 2002. At the high end, hotels and quality restaurants drive an elite market, among other things encouraging a nascent network of wine dealers and wineries. In fast food, chains such as KFC, which has been in China since 1987, expand at a dizzying pace: in December 2001, there were 580 KFC outlets in mainland China; by mid-October 2002 there were 710. McDonald's has over 270 outlets, while Pizza Hut and Subway are also firmly established. Coffee shops like Starbucks and the Coffee Bean & Tea Leaf have become chic and increasingly popular hangouts in Beijing and Shanghai.

The retail sector is undergoing a dynamic transformation, driven by hypermarkets and convenience chains, which are attracting increasing numbers of sophisticated urban shoppers who like the cleanliness, variety and convenience. Large foreign players like Carrefour and Metro are forcing Chinese supermarkets to compete by enlarging their own stores and improving product selection. Even small Mom-and-Pop shops now boast modern displays, including refrigerated display cases. Chinese dairies now offer home delivery of fresh milk and milk products in urban areas.

China's cultural passion for food has not diminished even as food production becomes more professional and industrialized. Food is a preferred gift item for both family and business, offered on birthdays, anniversaries, weddings and holidays. There is an annual surge in food gift purchases, including specialty items like mooncake, before the Mid-Autumn Festival (September or October), and Chinese New Year holidays, which affects food processing production schedules.

Figure 5: Food Processing Industry SWOT Analysis

Strength	Weakness	Opportunity	Threat
World's largest food	Fragmented market; 65-	China is new to food	Intellectual Property:
market; food sector	70% of people are	processing, open to	successful products
growth in the double-	scattered in the	foreign processes and	quickly counterfeited;
digits.	countryside.	technologies.	innovative processes may
			be stolen.
China's economy large	Poor logistics and	WTO entry leads to	Non-tariff barriers such
enough to survive	infrastructure hamper	lower tariffs and import	as SPS rules and local
setbacks that hurt others.	producers, processors,	barriers, market and legal	protectionism will not
	distributors.	reform, and increased	disappear quickly despite
		access for distributors.	WTO.
Higher living standards,	Tariffs make price	Foreign-invested	Local producers catch up
health education drive	competition difficult;	companies on leading	quickly; market life of
consumers to demand	import procedures can be	edge of industry, more	new product may be
better quality, more variety in new diets.	costly, obstructive, and inconvenient.	likely to use imported ingredients.	short.
Changes in urban living	Basic agricultural	Undeveloped agriculture	Competition among
styles favor consumption	production is not well	means processors may	foreign firms in China is
of more processed food.	integrated with	need to import even basic	intense.
of more processed rood.	commercial food	ingredients to develop	intense.
	processing sector.	their food businesses.	
	F		
Low wage structure		Chinese firms looking for	
makes China a good base		investment, marketing,	
for value-added		packaging, management	
processing.		support.	

SECTION II: MARKET STRUCTURE AND ROAD MAP FOR ENTRY

A. Market Segments

China has about 810 million rural residents and 460 million urban residents. There is a sharp split in income, lifestyle and sophistication between these groups that underlies all marketing strategies. The government reported that in 2001, the average urban household in China spent about RMB 2014 (USD 243) per capita annually on food, while in Shanghai that amount was RMB 4022 (USD 487). The average rural household spent RMB 830 (USD 100) per capita.

Marketers divide the population into three branches:

- **Ž Elite consumers**. Most of the top ten percent of urban consumers live in Shanghai, Guangzhou and Beijing, though this class is also growing in other major cities. This urban middle class is beginning to buy houses and cars and can afford a more sophisticated diet including imported food.
- **Ž** Mass market. Most food processors pitch their products to this group of urban residents plus the wealthiest third of rural residents in all, about 600 million people. The key price target for this cohort is 1 RMB, 12 U.S. cents. Food processors attempt to drive their prices down so that a single item, whether it is a bag of chips or a beverage serving, costs 1 *yuan* (RMB).

Z Rural poor. At the bottom of China's economic food chain are 600 million mostly rural residents who cannot even afford to spend 12 US cents a day for processed food on a regular basis.

Many manufacturers strive to hit the magic 1 *yuan* per item target, which puts tremendous price pressure on food ingredients manufacturers. Higher-priced items are narrowly targeted at the major urban markets, most of whom live in the large cities of eastern China.

The modern food processing industry is largely concentrated in eastern China, most importantly in the city of Shanghai and the adjacent provinces of Jiangsu and Zhejiang. The other two major poles are Shandong province in the north and Guangdong Province in the south.

These areas have access to seaports, good transportation links and imported technology. China's east coast corridor has been more exposed to modern international business practices and is generally less likely to engage in local protectionism. East coast consumers have benefitted most from economic development since reform of the Communist economy began in 1978, and they currently also comprise the largest market for processed and imported food.

B. Management Styles

Food ingredient producers and distributors divide their clients into three broad categories in the Chinese market.

- **Ž** Foreign-managed companies. These companies are not just foreign-invested, but also have international management *on site at the plant*.
- Ž Large Chinese food processors, including foreign-invested companies with no on-site international management.
- **Ž** Small-scale local food processors.

Companies that have foreign managers on site are usually operated along standard lines: they attempt to control their supply chains and inventory, budget for R&D, integrate market research with production plans, pre-approve suppliers and in general apply familiar management models to their business. Overall market share for these companies has been growing at about three percent a year (see Figure 3 on page 4).

The management systems and leadership of Chinese food processing companies are generally less developed than their foreign counterparts. Whether state-owned or private, Chinese companies usually have poor information systems and cost control. Suppliers are expected to provide technical support and product recipes. Planning is short term, with production decisions made shortly before cycles begin, usually without reference to an annual budget. It is not uncommon for Chinese food processing companies to order inputs or cancel production on short notice, based on last week's or even yesterday's sales. Likewise, these companies have little notion of accounting concepts like depreciation. Profit is often defined as nothing more than positive cash flow, which puts a squeeze on investment and a premium on cheap inputs.

Small producers are mostly regional or seasonal. This market is difficult to reach and rarely incorporates imported ingredients unless they are adopted as the industry standard.

C. Distribution Channels

Distribution channels are generally not well developed, but increased attention is being paid to the logistics sector, which will need to improve to accommodate increased trade. The sector is a baffling mix of

transport modes and authorities. New infrastructure is being built, but there is still relatively little concept of logistics as a whole system for moving goods. Up to 30% of a product's cost in China is related to distribution, whereas 10% is the norm in the United States. Regulations and policies hamper foreign distributors by limiting the scope of business and geographical reach. However, these regulations are being phased out under the WTO accession agreement, with all restrictions due to be removed by January 1, 2005.

The most important challenge for exporters is to identify and sign up with an "importer," "distributor," or "wholesale or general distributor." The distributor should be able to handle import formalities, as well as storing and shipping product. It should also be able to handle government certificates and approvals needed for new products. Above all, the importer must also have a way to pay for products by remitting hard currency to the exporter overseas: the RMB is not convertible, and China has stiff foreign currency controls.

For purposes of food ingredients distribution, China is generally divided into three regions: North China (China north and east of the Yellow River, including Beijing, Tianjin and Manchuria); Huadong, which includes the coast from Shandong to Fujian provinces, the city of Shanghai, and Jiangsu, Zhejiang and Anhui provinces; and South China, mostly Guangdong province. Distribution, retail and food markets in the west of China are still largely undeveloped and virtually inaccessible to processors and importers.

The largest food ingredient distribution companies are state-owned trading companies, many of which are still recovering from their loss of monopoly. The biggest is the giant COFCO (China National Cereals, Oils and Foodstuffs Import and Export Company). Caveat emptor: these companies are not market-oriented and tend to provide little satisfaction to small players.

Fortunately, there is now an expanding set of options:

- **Ž Private Distributors.** They usually operate with an import agent, who provides an import license and foreign currency conversion, which adds about 1-2% to costs. However, they more than make up for this with their market-oriented attitude. These companies generally have their own warehouses and eagerly cooperate in technical demonstration, support and sales efforts. By and large they operate in a single region.
- **Z** Single Product Distributors. These distributors focus on a single product, or type of product. Three companies share most of the market for whey products, for instance.
- Third Party Logistics. A small group of foreign-managed companies have been established in ports and free trade zones (FTZ), such as Shanghai's WGQ. They offer customs clearance, foreign exchange conversion, bonded warehousing and shipment. Typically, this strategy requires the supplier to establish a representative office to handle sales and technical support. This group is expected to benefit from WTO reforms, which should enable them to increase the scope and geographical reach of their work.
- **Ž** "Gray Channel." Hong Kong agents who hook up with a distributor on the mainland. Product may be brought into China outside of official channels. But the US supplier has little control over downstream market, technical support is difficult and supplies are not reliable. National authorities are beginning to exercise some control over the gray channel.
- **Ž Self-distribute.** Establish a full-fledged subsidiary or joint-venture in China and distribute your own products. Some companies move to this method after establishing themselves in the China market.
- **Z** Sub-distributors. These companies usually work in one city or province, provide no technical support, handle small food processors. Some dislike handling imported goods

because of the technical and currency exchange headaches.

Figure 6.1: Distribution Flowchart for Large Food Processors and FIEs

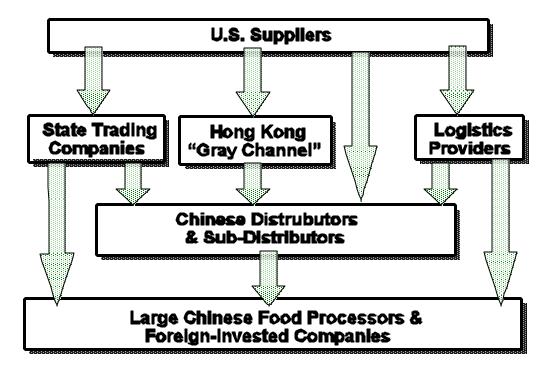
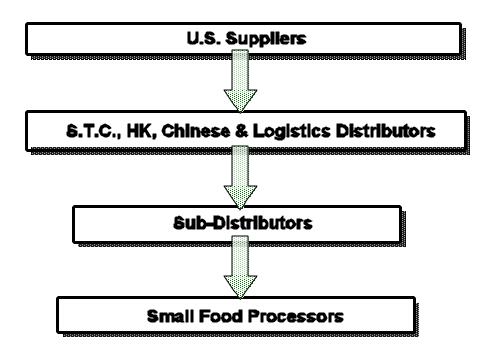


Figure 6.2: Distribution Flowchart for Small Food Processors



D. Recommendations for New-To-Market Exporters

The diversity of China's food ingredients sector makes it impossible to outline one magic strategy for all suppliers. As one Chinese distributor put it, "If you have a model of this market, it doesn't work." However, there are a number of common factors to consider.

Despite China's enormous population, as a practical matter the food processing industry is concentrated in four coastal areas -- Shandong, Fujian, Guangdong, and most significantly, the Shanghai region. It is important to approach this market with realistic expectations and to focus initially on just one region. Try to drive the phrase "1.4 billion consumers" out of your head; as noted earlier, almost half are still too poor to enter even the mass market.

You will need to figure out how your product can be used in typical Chinese products such as fish-crackers, baked goods and dumplings (sold frozen), or microwaveable rice dinners. Companies with operations elsewhere in Asia, and familiarity with Asian tastes, can use that experience to their advantage. Food processors note, however, that the urban Chinese market is ripe for new tastes – look at Coca-Cola, McDonald's, KFC and Starbucks.

You should have some key accounts already in mind, if not signed, when you enter the market. If one of your US clients has China operations, this can be a good place to start. Numerous companies have entered China by piggybacking on their Stateside clients.

If you want to introduce a product or ingredient that is new to China, you must register via a food standards committee organized by the China Food Industry Association (CFIA), the China Food Additives Association (CFAA), and various government bureaucracies. The CFIA committee meets once a year, in October, to approve new products, with a July deadline for applications. *If you miss this deadline, you have to wait another year.* The CFIA, CFAA and the better distributors can assist with this process.

Companies already in the market advise that you not try to stretch your abilities or resources in China – in other words, do not try to sell or manufacture a product in China if you do not already have experience with that product at home.

As noted earlier, developing a good relationship with a distributor is key to success. Look for a distributor with food technicians on staff, and one that has experience working with other exporters. Visit the warehouse where your goods will be stored – make sure that, for instance, your rolled margarine for puff pastry is not going to sit outdoors. A rough rule of thumb is to look for a distributor that was founded as a private company (not a state-owned spinoff) after 1995. These companies grew up in the market-oriented economy of the late 1990s, and are less likely to suffer from the passivity and bureaucracy that typifies older, state-owned companies. The good distributors are actually getting picky. Watch out for anyone who says they can distribute throughout China, because they are likely relying on sub-distributors who will not be able to promote your product. Better to deal individually with a distributor in each region. Market research is a necessity. The first thing to determine is whether your product can help food processors meet the low price points that are vital to success in the mass consumer market. That price is 1 yuan for the mass market, slightly higher for the premium urban markets in Shanghai, Guangdong and Beijing. Remember to factor in tariffs and import expenses. If you cannot meet the price point, you must pitch to FIEs, big Chinese companies and exporters.

Salesmen describe four major strategies for pitching to Chinese clients:

- 1. Your product will decrease their costs.
- 2. Your product will increase quality at no extra cost.
- 3. Your product will increase quality and cost, but also sales (this works best with products that are already out there, but are failing in the market)
- 4. Your product has a health or other benefit that consumers demand. (For example, the Almond Board of California, a major promotion board for ingredient exporting to China, conveys a health-focused marketing message to its target demographic.)

When pitching to Chinese clients, be prepared to offer a recipe, technical support and samples. You should also have product in country ready to ship as the decision will be made quickly – if you aren't ready, you will lose the sale. The size of your product can be a factor in your initial investment – it makes a difference if you are promoting a flavor or enzyme by the kilo and can fly the product in quickly, or as a bulk product. Food processors will not hold stock, so distributors tend to keep a large inventory because, as one put it, "I never know when I will suddenly get an order for five tons of soy lecithin."

The Chinese market is a hands-on market, which despite its size depends heavily on one-to-one relationships. Be prepared to visit your distributors and major clients at least once a quarter. This does not mean that you have to have an office in China, although that is probably the best course, but regular visits are imperative. Some exporters partner with their distributors to set up seminars and technical demos for clients two or three times a year.

Credibility is a major advantage for foreign companies. Everybody knows that the key technologies come from outside China. Distributors say it is far easier for a foreign supplier to persuade a Chinese company to try out a new product or process than it is for a Chinese supplier. Nevertheless, it is a good idea to send Ph.D.s on demonstration or support missions; set up booths and present demonstrations and seminars at food expositions, and provide articles for Chinese food magazines.

Chinese also visit major food exhibitions in the US. The China Food Additive Industry Association, for instance, brought 30 officials, businessmen and food scientists to the 2001 Institute of Food Technologists (IFT) expo in New Orleans.

The major magazines include *Food Industry News*, published by the China Food Industry Association; *China Food Additives*, published by the China Food Additive Association; *Food Development News*, published with Japanese investment; or the Chinese edition of *International Food and Beverage Ingredients News*, published by Ringier Trade Publications. *China Food News*, a daily newspaper, is sponsored by the China Light Industry Association.

SECTION III: COMPETITION

The Chinese food industry is vibrant, sophisticated and characterized by fierce competition. The most serious challenge facing US food ingredient exporters comes from domestic manufacturers and foreign-invested enterprises. Chinese companies in the sector are market-oriented, while foreign companies have introduced modern technologies and quality standards.

Chinese suppliers have a price advantage that is hard to beat, but often have difficulty meeting the modern food industry's demand for quality and consistency. For instance, the general manager of a high-end wholly-owned foreign enterprise bakery in Shanghai explained why he will not purchase domestically produced raisins and instead insists on American imports. The handling and shipment of domestic raisins show inferior hygiene, product quality and thus baking capability. For his growing company, which currently has 30 branches in Shanghai, the decision to use the more expensive but reliable US product is simple. Consumer demand for higher-quality products is a boost for imports. Gradual modernization in agriculture may enable Chinese farmers to raise the quality of their products, making it more difficult to sell bulk imports like barley, soybean and potato products.

According to distributors, a rough rule of thumb in the additive, enzyme and flavoring market is that domestic products run about 5-6 years behind newly introduced imports. That is, a newly introduced food processing input or process has a market life of 5-6 years before a cheaper Chinese equivalent appears. As a rule, the more technologically sophisticated a product is, the less likely it is to face early low-cost competition from Chinese manufacturers.

Many large international ingredients suppliers already have a presence in China. The list runs from Archer Daniels Midland through Cargill, Danisco, FIS, Warner Jenkinson, and Novozyme (ex-Novo Nordisk). The ten largest international flavor and fragrance companies are all associate members of the China Food Additive Association, the quasi-governmental organization that both promotes and supervises the industry. Givaudan, Firmenich and International Flavors and Fragrances have established food technology centers to serve clients here in China.

European food ingredients companies may have an edge in some cases because Chinese food companies prefer European processing equipment. American companies should make certain to take advantage of assistance offered by industry groups like the Almond Board of California, American Peanut Council, US Dairy Export Council, US Potato Board, and other promotional organizations. The USDA has Agricultural Trade Offices in Guangzhou, Shanghai and Beijing. Several states and cities also have offices in China to assist constituents.

It is probably unwise to license patented processes in China. Given the low respect for intellectual property, the process will probably be stolen or imitated, often by the licensee itself.

In sum, the field is crowded, competition is fierce, and China-based food processors are happily anticipating more of the same now that China is a member of the World Trade Organization.

SECTION IV: BEST PRODUCT PROSPECTS

There are many basic inputs that Chinese agriculture cannot yet produce with the quality and consistency required by commercial food processing operations. Many of the best prospects emerge from the current agriculture-food processing disconnect. Chinese potatoes, for example, have coarse skin, deep eyes, round shape, and high sugar and water content. This means that despite substantial production, frozen French fries are still being imported for fast-food operations and potato flour must be imported for processing. Determined efforts to improve Chinese potato production have had mixed results at best, due to the large population, small holdings, bad transportation and lack of investment. Other products in this category include specialty flour mixes, nuts and fruit used in industrial baking, among other food and beverage base ingredients.

Other best product prospects emerge from the low-cost structure demanded by the mass market and the characteristics of the burgeoning Chinese urban retail market. In this environment, any ingredient that allows Chinese food processors to drive costs out of their manufacturing process has good prospects. Processors are often forced to use inferior base products, because imports are too expensive, so they look for products and processes that compensate for uneven quality, bad taste and other deficiencies. Masking flavors, stabilizers, colorings and enzymes are examples of this high-potential product category.

As the urban population demands higher quality and more options, ingredients that enhance nutrition, appearance, texture and "mouth feel" have strong prospects. Vitamins and calcium are competitive import categories, as are kelp, ginseng and other health products.

Other bright prospects are ingredients that enhance convenience by, for instance, enabling freezing, instant boiling, cooking or microwaveability. Imports already have a strong position in the market for thickeners, emulsifiers, stabilizers, flavor enhancers, flavor maskers, color and color fixatives.

The dairy industry is growing especially fast (38% from 1999-2001) and domestic milk production receives strong government encouragement. Ingredients that fortify fresh milk or that increase the available variety of dairy products are good prospects.

Any ingredient thought to increase intelligence or memory will raise sales, especially during exam period at schools and universities, when many Chinese students go on special "intelligence diets."

In the equipment field, baking, packaging and mixing technologies, along with freezing and cold storage equipment, all have strong potential. Much of this equipment languishes through lack of training and follow-up, creating opportunities for companies with ingredients, processes and management services to sell

Testing equipment, ingredients and processes that will help companies meet HACCP safety and ISO9000 quality standards are also good prospects.

Prospective products not yet present in significant quantities:

Whey, whey powder and products – until two years ago whey was being used almost entirely in animal feed. With introduction of Western technology, its use as a food ingredient in cheaper products is increasing. Because whey is a by-product of cheese production, and China produces virtually no cheese, the entire market goes to imports, mostly from the US, Australia, Canada and several EU countries.

Products that will not do well in this market:

China is the world's largest manufacturer and consumer of monosodium glutamate, a market that is virtually certain to shrink as more sophisticated flavorings become available. Chinese companies that

manufacture MSG are trying to branch out.

Although the Chinese food market is beginning to differentiate, there is little demand at present for vegetarian products.

Prospects for labor-saving processes or ingredients are usually not good, since labor is China's biggest comparative advantage given its low wage structure. Likewise, depending on their orientation towards global or domestic markets, foreign companies are advised to focus on industries that exploit efficiency-enhancing management or technology. China's food processing sector presents extraordinary opportunities for American companies to enter the dynamic domestic market and/or establish a platform for export-oriented global manufacturing.

SECTION V. KEY CONTACTS AND FURTHER INFORMATION

For a list of **Chinese government regulatory agencies** in Beijing, Shanghai and Guangzhou, please see FAS China report number CH1068, available on the ATO Shanghai website www.atoshanghai.org and the FAS website www.fas.usda.gov.

For a list of **import specialists** in Beijing, Shanghai and Guangzhou, please see FAS China report number CH1069, available on the ATO Shanghai website www.atoshanghai.org and the FAS website www.fas.usda.gov.

For more information on specific products or companies within the **food processing sector**, companies may wish to consult the China Food Industry Association:

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